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The global food **governance system**

Akunna Oledinma and Qiongyu Lu discuss how food safety and security has become a critical issue in the supply chain.



As a major development challenge in the food supply chain, food security relates to every single department, as well as stakeholders involved in the process, from the collection of primary resources up to the final customer. As a fundamental human right, food plays an essential role in people's daily life. However, it is still a global challenge to provide safe, affordable and nutritious food to the majority of people. Food safety has become a critical topic in the food supply chain, together with the rapid process of globalisation. In the last two decades, food safety has established itself as an essential issue of the food supply chain in developed and developing countries.

Food governance is a cross-cutting sector of a top-level topic that also attracts noticeable global, political and economic considerations. It prompts the adoption of a wide range of actions to increase food security for the exchange and creation of information, sets standards to ensure coherence between food policies and regulations, and provides necessary technical assistance to set up cross-border food security projects. The global food governance system has been changed in recent years, with the development of new food regulation and certification approaches. Countries have built different governance mechanisms according to their needs and priorities and have signed agreements among different areas to improve food quality.

The UK new food governance strategies depend heavily on the partnership between the national government and food industries. Food safety has moved under the responsibility of the Food Standards Agency (FSA) in the new food governance system, a semi-governmental body with a degree of independence that aims to protect public health and restore confidence in food, and supermarkets that are taking more responsibility for the development and maintenance of quality standards. This co-regulatory model led to the establishment of the British Retail Consortium Global Standards, which provides new standards for food safety and quality control, and customers are encouraged to take a place in the regulation through a Consumer Committee of the FSA.

The administrative activity of governments, third-party regulators and food producers are considered to be the major stakeholders in food safety control. Although in a large number of cases where those parties have worked together proactively to create a synergy in order to make great efforts to ensure food safety,



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problems still occur frequently around the world due to the intervention of human factors. The lack of information exchange, illegal private labels and the lag of technological development are all causes of food safety issues.

A series of global food scandals and crises from the 1990s increased the importance of food safety. The earthquake and tsunami in Japan on 11th March 2011 led to the release of radioactive materials from the Fukushima Daiichi nuclear power plant into the marine environment, and into the fish and the wider food chain, causing one of the most serious food safety issues in recent years.

In order to build a more resilient and sustainable food supply chain, it is imperative that the role of governments and other related stakeholders in food governance be clarified.

Figure 1 shows a general, detailed description of food governance that explains the different roles of internal and external factors in food safety governance. Technologies such as RFID and time temperature integrators, environment issues (in particular climate change) and economic development are the main external factors that influence the choice of the governance approach. Following this, the promotion of policies by governments decides their national laws and how to deal with international trades and regulations. On the other hand, society has a great impact on food ethics.

Based on policies and regulations, food supply chains build their own standards to control food safety issues during production. Food traceability and food transparency play an essential role in supervising the process of material flow in the food supply chain. During this process, information collaboration helps

to reduce conflicts among various stakeholders by reducing information asymmetry, and deliver real-time information of food supply chains to the public and to governments. Effective food traceability system in the food supply chain also has a great impact on reducing food waste caused by excess production.

Although the market is driven by economic profits, increasing the level of food safety control may cause a certain decrease in revenues, due to the costs associated with a rigid supervision and the application of new systems. However, the food supply chain will get funding from the governments and non-government organisations to help build a safe and sustainable supply chain.

In addition, food industries can avoid increasing product prices by receiving financial support from government.



Global food governance structure and key stakeholders

Figure 1

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References

- BOXSTAE, S, et al, 2013, 'Food safety issues in fresh produce: Bacterial pathogens, viruses and pesticide residues indicated as major concerns by stakeholders in the fresh produce chain', *Food Control*, Elsevier Ltd, 32(1)
- GHOSH, D, 2014, 'Food safety regulations in Australia and New Zealand Food Standards', *Journal of the Science of Food and Agriculture*, 94(10)
- MAYE, D, et al, 2016, 'PDO as a Mechanism for Reterritorialisation and Agri-Food Governance: A Comparative Analysis of Cheese Products in the UK and Switzerland', *Agriculture*, 6(4)
- TSOLAKIS, N and SRAI, J S, 2017, 'A System Dynamics Approach to Food Security through Smallholder Farming in the UK', *Chemical Engineering Transactions*, 57
- WUBBEN, E F M, et al, 2013, 'Governance of differential stakeholder interests in supply chains and networks', *Journal on Chain and Network Science*, 13(2)